



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1419; Project Identifier MCAI-2022-01002-R; Amendment 39-22328; AD 2023-03-03]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Leonardo S.p.a. Model AB139 and AW139 helicopters. This AD was prompted by a report of a damaged tail rotor duplex bearing (TRDB). This AD requires repetitively inspecting certain TRDBs and depending on the results, replacing the TRDB or tail rotor actuator (TRA), or as an option, replacing the sliding control assembly. This AD also requires replacing an affected TRDB with a serviceable TRDB at a specified threshold and prohibits the installation of certain TRDBs or sliding control assemblies on any helicopter, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1419; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For EASA material that is incorporated by reference in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1419.

Other Related Service Information: For Leonardo service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G. Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone (+39) 0331-225074; fax (+39) 0331-229046; or at customerportal.leonardocompany.com/en-US/. You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Dan McCully, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1701 Columbia Ave., Mail Stop: ACO, College Park, GA 30337; telephone (404) 474-5548; email william.mccully@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued a series of ADs, with the most recent being EASA Emergency AD 2022-0182-E, dated August 30, 2022 (EASA AD 2022-0182-E), to correct an unsafe condition for all serial-numbered Leonardo S.p.A. Helicopters Model AB139 and AW139 helicopters. EASA AD 2022-0182-E defines the “affected part” as TRDB part number (P/N) 3G6430V00151, P/N 3G6430V00152, and P/N 3G6430V00153, the “affected TRA” as TRA P/N 3G6730V00731 and P/N 3G6730V00732, and the “affected assembly” as sliding control assembly P/N 3G6430A02531.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Leonardo S.p.a. Model AB139 and AW139 helicopters. The NPRM published in the *Federal Register* on November 10, 2022 (87 FR 67840). The NPRM was prompted by a report of a damaged TRDB. According to EASA, after an investigation, it was determined that the TRDB had been removed from a sliding control assembly and reinstalled on another sliding control assembly, even though Aircraft Maintenance Programme procedures do not allow reinstallation of a removed TRDB. The NPRM proposed to require accomplishing the actions specified in EASA AD 2022-0182-E.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters.

Related Service Information Under 1 CFR Part 51

EASA AD 2022-0182-E requires repetitively inspecting certain affected parts, and depending on the results, replacing the affected part with a serviceable part, and for certain conditions, replacing the affected TRA or sliding control assembly, as defined therein. EASA AD 2022-0182-E also requires replacing affected parts with serviceable parts at specified thresholds. Lastly, EASA AD 2022-0182-E prohibits the installation of certain TRDBs or sliding control assemblies on any helicopter.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Leonardo Helicopters Emergency Alert Service Bulletin No. 139-725, Revision A, dated August 9, 2022 (EASB 139-725 Rev A). EASB 139-725 Rev A specifies procedures for inspecting for rotation between the trunnion and pitch control rod, and applying slippage marks; inspecting the visible areas of the TRDB (including seals) for wear, damages, corrosion, particles, grease leakage, grease leakage particles (including magnetic/metallic particles), and roughness in its movement; and accomplishing a TRDB operational test. Finally, EASB 139-725 Rev A specifies procedures for replacing a TRDB and TRA, discarding the removed TRDB, and sending certain photos and information to Leonardo S.p.A.

Costs of Compliance

The FAA estimates that this AD affects 80 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting the TRDB takes up to about 12 work-hours and parts cost about \$100 for an estimated cost of up to \$1,120 per helicopter and \$89,600 for the U.S. fleet, per inspection cycle. If required, replacing a TRDB takes about 3 additional work-hours and parts cost about \$2,100, for an estimated cost of \$2,355 per helicopter. Replacing a TRA takes about 2 additional work-hours and parts cost about \$42,802, for an estimated cost of \$42,972 per helicopter. Alternatively, replacing the sliding control assembly takes about

6 work-hours and parts cost about \$11,500, for an estimated cost of \$12,010 per helicopter.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-03-03 Leonardo S.p.a.: Amendment 39-22328; Docket No. FAA-2022-1419; Project Identifier MCAI-2022-01002-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6400, Tail Rotor System.

(e) Unsafe Condition

This AD was prompted by a report of a damaged tail rotor duplex bearing (TRDB) that was improperly installed on a sliding control assembly. The FAA is issuing this AD to ensure the proper installation of a TRDB and prevent a TRDB from remaining in service beyond its life limit. The unsafe condition, if not detected and corrected, could lead to structural failure of the TRDB, possibly resulting in loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) Emergency AD 2022-0182-E, dated August 30, 2022 (EASA AD 2022-0182-E).

(h) Exceptions to EASA AD 2022-0182-E

(1) Where EASA AD 2022-0182-E requires compliance in terms of flight hours, this AD requires using hours time-in-service (TIS).

(2) Where EASA AD 2022-0182-E refers to July 28, 2022 (the effective date of EASA AD 2022-0152-E, dated July 26, 2022) and its effective date, this AD requires using the effective date of this AD.

(3) Where the service information referenced in EASA AD 2022-0182-E specifies discarding certain parts, this AD requires removing those parts from service.

(4) Where the service information referenced in EASA AD 2022-0182-E specifies returning a part to the manufacturer, this AD does not require that action.

(5) The “Remarks” section of EASA AD 2022-0182-E does not apply to this AD.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0182-E specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

For more information about this AD, contact Dan McCully, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1701 Columbia Ave., Mail Stop: ACO, College Park, GA 30337; telephone (404) 474-5548; email william.mccully@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) Emergency AD 2022-0182-E, dated August 30, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0182-E, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on January 31, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-03270 Filed: 2/15/2023 8:45 am; Publication Date: 2/16/2023]